

## **REMARKS**

Claims 1-30 remain in the application. 1, 5-6, 8, 10-11, 15, and 17-18 have been amended. The amendment to at least claim 5 only added inherent limitations, and thus is not narrowing. New claims 22-30 have been added. No claims have been canceled.

### **Specification changes**

Applicant respectfully requests the Examiner enter the specification changes identified above. Applicant respectfully submits that support for the changes shown in [00015] are found at least in Figure 2. Applicant respectfully submits that support for the changes shown in [00017] are found within the same paragraph. Specifically, support for the changes now reading “session 305” and “content server 313” is found at least where it written “corresponding to the session 305” and where it is written “Data corresponding to the session 305 follows a path from the host 301 to the content server 313” (See specification, [00017]). Support for the change now reading “session 303” is found at least where it is written “the session 303 indicates a content server” and where it is written “Data corresponding to the session 303 flows on a path from the host 301 to the content server 315” (See specification, [00017]). Applicant respectfully submits that support for the changes shown in [00018] are found at least in Figure 4. Applicant respectfully submits that support for the changes shown in [00019] are found within the same paragraph. Specifically, support for the change now reading “virtual network element 515” is found at least where it is written “virtual network element 513 and a virtual network element 515” (See specification, [00019]).

**Rejections under 35 U.S.C. § 102(e)**

Claims 1 and 3 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Zhang et al. (U.S. Patent Number 6,490,289). Applicant respectfully reserves the right to swear behind the Zhang reference at a later time.

The NAT system of Zhang discusses that “network address translation will be utilized on each of the sessions” (Zhang, col. 5, lines 1-2) using a gateway “to convert the destination addresses of incoming packets and source addresses of outgoing packets so that traffic is directed to the correct address” (Zhang, col. 4, lines 31-35). In the NAT system of Zhang, “network address translation (NAT) is utilized on all the network connections” (Zhang, col. 4, lines 21-22). The NAT system of Zhang provides a single virtual network address to the PC to support a single PPP link and connection, and uses destination addresses to distinguish between different networks and NAT to translate between the virtual network address and different real network addresses provided by the different networks (Zhang, col. 4, lines 21-40). The NAT system of Zhang does not disclose “applying the set of network layer information to the host at the data link layer to insert a route to the one of a plurality of content servers identified by the set of network layer information.” (Claim 1 as amended)

Applicant respectfully submits that dependent claim 3 is allowable at least because it is dependent on allowable independent claim 1.

**Rejections under 35 U.S.C. § 102(a)**

**Claims 2, 4**

Claim 2 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Zhang et al. (U.S. Patent Number 6,490,289) in view of Mamakos et al. (RFC 2516). Claim 4 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Zhang et al.

(U.S. Patent Number 6,490,289) in view of Rajakarunananayake (U.S. Patent No. 6,587,883). Applicant respectfully reserves the right to swear behind the Mamakos and Rajakarunananayake references at a later time. Applicant respectfully submits that claims 2 and 4 are allowable at least because they are dependent claims on allowable independent claim 1.

Claims 12-14

Claims 12-14 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Chang et al. (U.S. Patent Number 6,751,082) in view of Mamakos et al. (RFC 2516).

Chang discusses “validating access to a network system” (Chang, col. 4, lines 20-21) is performed by “caching identification information in memory” (Chang, col. 3, lines 32-33) of a network access server. Chang does not apply any network information to the host, but rather a “network access server 104 is coupled to the network 108 and controls remote access to the network 108” (col. 5, lines 38-39). Furthermore, Mamakos merely discusses “how to build PPP sessions and encapsulate PPP packets over Ethernet” (Mamakos, pg. 1). Mamakos has nothing to do with applying network information to the host. As such, Applicant respectfully submits that the validating system of Chang and the PPPoE system of Mamakos, either alone or in combination do not disclose at least: 1) “applying the set of network information to the host” (Claim 12).

Applicant respectfully submits that claims 13-14 are allowable at least because they are dependent claims on allowable independent claim.

Rejections under 35 U.S.C. § 102(e) and 102(a)

The Office Action says that “Claims 5-11 and 15-21 do not teach or define any new limitations above claims 1-4 and 12-14 as mentioned above and are therefore rejected for similar reasons.” (Office Action, page 5) Applicant interprets this as claims

5-11 and 15-21 are rejected under (1) 35 U.S.C. § 102(e) as being anticipated by Zhang et al. (U.S. Patent Number 6,490,289).

### Claims 5-7

The NAT system of Zhang provides a single virtual network address to the PC to support a single PPP link and connection, and uses destination addresses to distinguish between different networks and NAT to translate between the virtual network address and different real network addresses provided by the different networks (Zhang, col. 4, lines 21-40). Thus, the NAT gateway of Zhang is used to create “multiple simultaneous network connections from a single PPP connection” (Zhang, col. 2, lines 63-64). Zhang discusses that a first network connection is formed “between the gateway and a first network” (Zhang, Figure 4) and that “a secondary network connection between the gateway and the second network” is formed (Zhang, Figure 4). As such, Zhang forms simultaneous sessions between the gateway and the network. Zhang does not form “a first session ... between a host and a first remote access concentrator....establishing a second session ... between the host and a second remote access concentrator without terminating the first session” (Claim 5 as amended).

Applicant respectfully submits that claims 6-7 are allowable at least because they are dependent claims on allowable independent claim.

### Claims 8-11

The NAT system of Zhang provides a single virtual network address to the PC to support a single PPP link and connection, and uses destination addresses to distinguish between different networks and NAT to translate between the virtual network address and different real network addresses provided by the different networks (Zhang, col. 4, lines

21-40). In contrast, the Applicant's amended claim 8 requires "retrieving a set of network layer information corresponding to the first account....creating a message having the set of network layer information within a data link layer of the message..... transmitting the message from the remote access concentrator to the host" (Claim 8 as amended).

Zhang's NAT gateway makes no mention of this.

Applicant respectfully submits that dependent claims 9-11 are allowable at least because they are dependent on an allowable independent claim.

#### Claims 15-21

The NAT system of Zhang provides a single virtual network address to the PC to support a single PPP link and connection, and uses destination addresses to distinguish between different networks and NAT to translate between the virtual network address and different real network addresses provided by the different networks (Zhang, col. 4, lines 21-40). The NAT system of Zhang does not disclose: 1) "processing unit to create a message having a subset of the set of network layer information within a data link layer of the message and to transmit the message in the communications session to a host." (Claim 15 as amended), and 2) "applying the set of network layer information to the host at the data link layer to insert a route to the one of a plurality of content servers identified by the set of network layer information." (Claim 18 as amended).

Applicant respectfully submits that dependent claims 16-17 and 19-21 are allowable at least because they depend on allowable independent claim.

#### **New Claims**

Applicant respectfully submits that new claims 22-30 add no new matter and are not anticipated or obvious in view of the cited prior art. In particular, the prior art does not anticipate or render obvious at least: 1) "accessing network information previously

entered for an account associated to the PPPoE session, wherein different accounts for different ones of the plurality of content servers include distinguishing network information” (Claim 22); 2) “receiving from one of the set of remote access concentrators a control protocol message in which is embedded at least some of the distinguishing network information for the account accessed for the PPPoE session by the remote access concentrator, and inserting a route to the one of the plurality of content servers identified by that network information.” (Claim 25); and 3) “a host device to distinguish simultaneous PPP sessions.....network data embedded within a data link layer of the messages” (Claim 28). Applicant respectfully submits that claims 23-24, 26-27, and 29-30 are allowable at least because they are dependent claims on allowable independent claims.

## CONCLUSION

It is respectfully submitted that in view of the amendments and remarks set forth herein, the rejections and objections have been overcome. If there are any additional charges, please charge them to our Deposit Account No. 02-2666. Applicant respectfully requests that a timely Notice of Allowance be issued in this case.

Respectfully submitted,

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Dated:

11/4/04



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